## REMARKS

Claims 6, 8, 11, and 13 are pending in the application. Claims 6 and 11 have been amended to incorporate the subject matter of claims 7 and 12, respectively, which are canceled. Claims 6 and 11 also recite an "unfilled" gap, as taught by the Applicant's invention. The amendments are fully supported by the specification as originally filed.

Applicant's claimed invention is directed to a semiconductor package having a chip mounted on a substrate, wherein the substrate includes an electrically-conductive bridge for electrically connecting a corresponding via and bond finger, which are not otherwise directly connectable due to the presence of an interposing electrically-conductive trace (e.g., trace 70A in FIGS. 6 and 7). The electrically-conductive bridge is either a bonding wire mounted through wire-bonding technology (claim 6; see FIG. 6; page 7, lines 11-14 of Applicant's specification), or a chip resistor mounted through SMT technology (claim 11; see FIG. 7; page 7, lines 15-18). The electrically-conductive bridge spans in an overhead manner across the interposing trace, such that **an unfilled gap** is formed between the electrically-conductive bridge and the interposing trace.

The above-described electrically-conductive bridge can be implemented in an easy and cost-effective manner by using existing wire-bonding technology or surface-mount technology (SMT), which allows via/bond finger bridging to be implemented on a single-layer substrate, without having to use a multi-layer substrate to provide electrical connectivity. Applicant has solved the problem of connecting overlapping electrically-conductive traces by using a single-layer substrate, thereby reducing manufacturing complexity and fabrication costs as compared to prior art solutions which require a multi-layer substrate.

Claims 6-8 and 11-13 were rejected under 35 USC 103(a) as being unpatentable over "Applicant's Prior Art Figures 3 and 4 (APAF)" in view of U.S. Patent 3,560,256 to Abrams. This rejection is respectfully traversed.

With reference to the Background section of the specification, prior art FIG. 3 shows an example in which bond finger 60B cannot be directly connected to via 80A using a continuous electrically-conductive trace (see page 3, lines 2-3); if such a direct connection were attempted, the interposing trace 70A would be impacted. Prior art FIG. 4 provides a solution to the problem of FIG. 3 by incorporating ***a multi-layer substrate***; however, as discussed in the Applicant's specification, the use of a multi-layer substrate is undesirable due to its high cost and complexity (see page 3, lines 10-15). As indicated in the Office Action, prior art FIGS. 3 and 4 fail to teach or suggest the electrically-conductive bridge recited in claims 6 and 11.

Abrams, as a main objective, teaches the use of a dielectric 27 or 29 to minimize capacitive coupling between a crossover resistor and an underlying conductor (see column 2, lines 34-42). As shown in FIG. 1, the dielectric 27 or 29 is interposed between a crossover conductor 26 or resistor 28 and underlying conductors. The dielectrics 27 and 29 are "glazes" with the following properties: "low dielectric constant, high dielectric strength, low leakage and low dissipation factor," so as to minimize capacitive coupling between crossing paths (column 4, lines 64-68). It is apparent from the above teachings that the dielectrics 27 and 29 are critical components essential to achieving the objective of reducing capacitive coupling in Abrams.

In contrast, the Applicants' claimed invention recites a BGA package having an electrically-conductive bridge including a bonding wire mounted through wire-bonding or SMT technology that spans an electrically-conductive trace, where **an unfilled gap** is formed between the bonding wire and the electrically-conductive trace. As indicated by claims 6 and 11, the unfilled gap is not filled with any dielectric material. Therefore, Abrams cannot anticipate or otherwise render obvious these claims, at least because Abrams requires a dielectric to be filled between the crossover conductor and an underlying conductor, in order to minimize capacitive coupling.

Moreover, with reference to column 4, lines 3-6 and 25-31 of Abrams (as cited in the Office Action), Abrams discloses that the thin-film crossover resistor 28 and the crossover conductor 26 can be made of "a very high conductivity metal, such as gold." However, Abrams

does not teach or suggest an electrically-conductive bridge as a bonding wire mounted through wire-bonding technology (claim 6) or a chip resistor mounted through SMT technology (claim 11). Therefore, Abrams also fails to teach or suggest these limitations of the Applicant's claimed invention.

For at least the above reasons, the combination of prior art FIGS. 3 and 4 in view of Abrams does not render obvious the Applicant's claimed invention.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

Date: December 22, 2003

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